

present study, we report on the clinical and economical outcomes associated with omalizumab use in a cohort ( $n = 23$ ) of Italian adult asthmatics treated for a mean of 10 months (range: 2–22). The pharmacoeconomic value of the treatment is assessed with the cost/utility ratio evaluation. **RESULTS:** Omalizumab significantly improved asthma control and these patients' health-related quality of life, with respect to the year preceding its inclusion in their therapeutic strategy. Despite reducing the costs of symptomatic drugs and hospital care for this patient population, the net economic effect of omalizumab introduction is an estimated increase of about €350 in overall monthly costs. However, when related to the increase in health benefits, this cost increase results in an incremental cost/utility ratio of about €26,000/quality-adjusted life years gained, a favourable value according to the willingness to pay for health benefits in industrialised countries. **CONCLUSIONS:** Omalizumab therapy significantly improved clinical outcomes in difficult-to-treat asthmatic patients. Costs also increased, but this increase appears to be justified by the important clinical benefits achieved.

## PRS29

**QUALITY OF LIFE AND WORK PRODUCTIVITY IN ALLERGIC RHINITIS PATIENTS SUFFERING FROM BOTH NASAL AND OCULAR SYMPTOMS—AN OBSERVATIONAL, CROSS SECTIONAL STUDY IN 4 COUNTRIES IN EUROPE**

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**OBJECTIVES:** It is hypothesised that the presence of ocular manifestations (Oc+Ns) in addition to nasal symptoms (Ns) places an additional burden on Allergic Rhinitis patients. This study investigated the impact on the Quality of Life (QoL) and Burden of Illness (BoI) among AR patients in France, Germany, Italy and Spain. **METHODS:** The data were drawn from a cross-sectional study of consulting patients undertaken in May/June 2008 (Adelphi). Data were collected by doctors who included records relating to the next consecutive 4–5 patients consulting for AR. Patients were invited to fill out self-completion questionnaires: QoL and work productivity measures such as Mini-RQLQ (Rhinoconjunctivitis Quality of Life Questionnaire), PSQI (Pittsburgh Sleep Quality Index) and WPAI (Work Productivity and Activity Impairment questionnaire). Propensity scoring (PS) methods were used to match the two comparison groups (Oc+Ns patients vs Ns only). **RESULTS:** The total sample size was 750 and 70% of these patients (526) presented with both symptoms (Oc+Ns). The results were consistent in all domains of the QoL tools with Oc+Ns patients displaying poorer QoL. Clinically differences were found in the overall quality of life (RQLQ) score (2.54 vs. 1.96,  $p < 0.01$ ). Regarding sleep quality (measured by the PSQI), the global score showed a statistically difference (5.41 vs. 4.57,  $p < 0.05$ ), with the Oc+Ns group falling in the “poor sleepers” category (score above 5). Regular activities (36% vs. 29%, WPAI: AS percent impairment,  $P < 0.05$ ) and impact on work (0.8 vs. 0.3 days, time off work due to AR in the last 3 months,  $p < 0.05$ ) also showed a higher burden in Oc+Ns patients. **CONCLUSIONS:** AR patients with both ocular and nasal symptoms have significantly poorer QoL and quality of sleep and take more time off work/usual activities than those with nasal symptoms only. These patients would benefit from therapies that are proven to specifically address ocular symptoms in addition to nasal symptoms.

## PRS30

**IMPACT OF OCULAR SYMPTOMS ON RESOURCE UTILISATION AND WORK PRODUCTIVITY IN MANAGEMENT OF AR—AN OBSERVATIONAL, CROSS SECTIONAL STUDY IN 4 COUNTRIES IN EUROPE**

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**OBJECTIVES:** It is hypothesised that the presence of ocular symptoms (Oc+Ns) in addition to nasal symptoms (Ns) results in additional resource utilization. This study investigated the impact on burden of illness (BoI) among AR patients in France, Germany, Italy and Spain. **METHODS:** The data were drawn from a cross-sectional study of consulting patients undertaken in May/June 2008 (Adelphi). Data were collected by doctors who included records relating to the next consecutive 4–5 patients consulting for AR. Patients were invited to fill the WPAI (Work Productivity and Activity Impairment) questionnaire. Propensity scoring (PS) methods were used to match the two comparison groups (Oc+Ns patients vs Ns only). **RESULTS:** A total of 1009 patients meeting the inclusion criteria of which 69% (700) presented with both symptoms (Oc+Ns). The Oc+Ns patients were prescribed 15% more AR medications (e.g. inhaled nasal corticosteroids, NSAs; 1.6 vs. 1.4,  $p < 0.05$ ) and required 23% more consultations with health care services concerning their AR condition (4.9 vs. 4.0,  $p < 0.05$ ). Of the 1009, 750 filled in the self-completion questionnaire (including 526 Oc+Ns patients). All work related AR WPAI domains were statistically different with Oc+Ns patients recording greater impact including proportion of work time (hours) missed due to AR in the last 7 days (3.3% vs. 0.7%,  $p < 0.05$ ), impairment while working (hours worked in the last 7 days, 32.6% vs. 21.8%,  $p < 0.05$ ) In addition, Oc+Ns patients recorded more actual days off work due to AR over the preceding 3 months compared with patients with nasal symptoms only (0.8 vs. 0.3 days  $p < 0.05$ ). **CONCLUSIONS:** AR patients with both ocular and nasal symptoms place a significant additional burden on resource utilisation and experience greater lost productivity than those with nasal symptoms only. Therapies that are proven to specifically address ocular in addition to nasal symptoms would result in benefits from both the direct and indirect costs associated with AR.

## RESPIRATORY-RELATED DISORDERS – Patient-Reported Outcomes Studies

## PRS31

**PRESCRIPTION PATTERNS OF AND TREATMENT ADHERENCE TO INHALED CORTICOSTEROIDS AND LEUKOTRIENE-RECEPTOR ANTAGONISTS AMONG ASTHMATIC CHILDREN**

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**OBJECTIVES:** To compare prescription patterns and treatment adherence to inhaled corticosteroids (ICS) and leukotriene-receptor antagonists (LTRA) among asthmatic children. **METHODS:** Using the Quebec (Canada) administrative health databases, we identified a cohort of 27,355 asthmatic children aged 5 to 15 years in whom monotherapy with ICS or LTRA was initiated between January 1, 1998 and August 31, 2005. Prescription patterns were examined by the proportion of days' supply prescribed (PDSP: number of days with supply prescribed from all physicians a patient consulted over the number of days of follow-up). Adherence to therapy was estimated by the proportion of prescribed days covered (PPDC: number of days' supply dispensed over the number of days' supply prescribed during the follow-up). The mean PDSP and PPDC were compared between ICS and LTRA patients using t-tests. All analyses were stratified by the presence or the absence of an asthma exacerbation in the year prior to treatment initiation with ICS or LTRA. **RESULTS:** Among patients who had an asthma exacerbation, 7427 initiated ICS and 67 initiated LTRA therapy. Corresponding figures were 19439 and 422 among patients who did not have an asthma exacerbation. The mean PPDC was similar between ICS and LTRA users in both strata (68.0 % vs 64.7% in the exacerbation stratum and 63.9 vs 62.7 in the no exacerbation stratum), but the PDSP was significantly lower among ICS users (32.8% vs 55.9% ( $p$ -value  $< 0.001$ ) in the exacerbation stratum and 34.0% vs 51.9% ( $p$ -value  $< 0.001$ ) in the no exacerbation stratum). **CONCLUSIONS:** Asthmatic children treated with ICS and LTRA had similar treatment adherence to the prescribed medications, but ICS appeared to be more frequently prescribed as an intermittent rather than a daily controller therapy, resulting in lower usage of ICS.

## PRS32

**ADJUSTING THE NICOTINE DOSE: THE KEY TO A SUCCESSFUL, “TAILORED” METHOD OF QUITTING SMOKING**

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**INTRODUCTION:** In a recent report, AFSSAPS (the French Health Products Safety Agency) discussed to what extent the dose selected constitutes an important success factor. **OBJECTIVES:** Assess the impact of quitting smoking in subjects receiving treatment by nicotine patches, combined in some cases (and others not, depending on the practitioners' approach) with nicotine pastilles to suck. **METHODS:** Each of the subjects was included after they had expressed, during the spontaneous consultation, their desire to quit smoking. The cohort being pragmatic, no prescription advice was given, directly or indirectly, to the investigating doctors. The doctors were recruited by an independent service provider. Should the name of the products used not be cited? **RESULTS:** A total of 215 subjects were recruited by 67 general practitioners. Two analysis groups were organised, the first group being treated with a transdermal device or skin patch ( $n = 93$ ) and the second with a transdermal device combined with pastilles ( $n = 122$ ). After 6 months, the rate of abstinence in the “Patch + Pastille” group was 62.1% versus 39.7% in the “Patch only” group, the difference observed being significant ( $p = 0.008$ ). **CONCLUSIONS:** This cohort, carried out in real conditions, highlights—in subjects wishing to quit smoking—the relevance of adjusting the dose with the help of pastilles. Therefore, it would appear that, for subjects quitting smoking, combining pastilles with a transdermal nicotine substitute is indispensable. The role of the health professional initiating the quitting programme is therefore of prime importance.

## PRS33

**DEVELOPMENT OF A PREFERENCE-BASED ALGORITHM TO REPORT UTILITIES FOR EXACERBATIONS OF COPD FROM THE EXACT**

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**OBJECTIVES:** To develop and validate an algorithm to report utilities from the EXACT for use in cost-effectiveness studies in the UK. Current methods to derive utilities for exacerbations of COPD tend to be insensitive and unresponsive to change, including the widely used EQ-5D. There is a need to develop a measure that captures the full exacerbation experience with precision and responsiveness. The EXACT is a condition-specific PRO developed to measure the frequency, severity, and resolution of COPD exacerbations. **METHODS:** The EXACT items reduced using Rasch analyses. Remaining items and levels grouped to form health states. States cognitively debriefed using patients to ensure combined wording and structure were appropriate. Members of the general public interviewed to value 11 health states each (including best/worst states) using the time trade-off (TTO) technique from full health/dead over 10 years, with worse than dead values possible. Analyses include regression techniques to develop models that best predict utilities. Models assessed by number of inconsistencies in the health state utilities, adjusted R<sup>2</sup>, and mean squared errors. Selected model validated using two separate datasets—one to test the predictive properties and one to test responsiveness and construct validity. **RESULTS:** Five items with 3 to 5 levels were selected to comprise the EXACT-U. Health states debriefed with 14 patients experiencing an exacerbation within the last 6 months. Total of 60 health states